

BWPS 300 - 1000



Heat pump storage tank solar

BWPS 300 - 1000

Application

This hot water storage tank features a double helix heating surface and solar exchanger, and is thus suitable for the combination of heat pumps with solar heating systems. It can also be used as a high performance storage tank for oil, gas, solid fuel and similar.

Corrosion protection for parts with drinking water contact

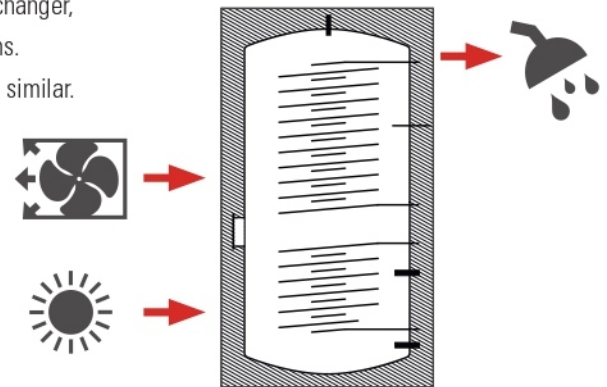
Enamelled as per DIN 4753. A magnesium anode offers additional corrosion protection.

External corrosion protection

Up to 600 l protective enamelled layers and foam encased
800 to 1,000 l powder-coated

Heat insulation

Type 300-600: 50 mm PU rigid foam insulation with soft sleeve
Type 800-1000: 95 mm PU rigid foam half-shell with soft sleeve



Model overview BWPS 300 - 1000

Type	Article no.	Volume	Height with insulation	Tilt height	Installation diameter	Weight (empty)	Surface HE top / bottom	Output figure	Efficiency class
Unit	[-]	[l]	[mm]	[mm]	[kg]	[kg]	[m ²] / [m ²]	[-]	[-]
BWPS 300	STD0300BWPS	285	1670	1780	610	157	2,5 / 1	1,4	C
BWPS 500	STD0500BWPS	496	1800	1960	760	207	3,8 / 1,5	3,8	C
BWPS 600	STD0600BWPS	559	2000	2150	760	246	6 / 1,8	4,1	C
BWPS 800	STD0800BWPS	805	1985	2020	790	313	4,9 / 1,8	5	C
BWPS 1000	STD1000BWPS	910	2185	2220	790	356	6 / 2,8	5,8	C

Heat pump storage tank

Technical specifications BWPS 300 - 1000

Type	Unit	BWPS 300	BWPS 500	BWPS 600	BWPS 800	BWPS 1000
Article no.	[-]	STD0300BWPS STD0300BWPS.H	STD0500BWPS STD0500BWPS.H	STD0600BWPS STD0600BWPS.H	STD0800BWPS	STD1000BWPS
Volume	[l]	285	496	559	805	910
Drinking water content	[l]	264	463	515	763	856
Content HE top	[l]	15,5	23,6	32,5	30,4	36
Content HE bottom	[l]	5,7	9,4	11,2	11,9	17,5
Height with insulation	[mm]	1670	1800	2000	1985	2185
Diameter with insulation	[mm]	610	760	760	990	990
Diameter without insulation	[mm]	-	-	-	790	790
Tilt height	[mm]	1780	1960	2150	2020	2220
Installation diameter	[mm]	610	760	760	790	790
Weight (empty)	[kg]	157	207	246	313	356
Max. operating pressure heating side	[bar]	10	10	10	10	10
Test pressure heating side	[bar]	15	15	15	15	15
Max. operating pressure hot drinking water side	[bar]	10	10	10	10	10
Test pressure hot drinking water side	[bar]	15	15	15	15	15
Max. operating pressure solar side	[bar]	10	10	10	10	10
Test pressure solar side	[bar]	15	15	15	15	15
Max. operating temperature heating side	[°C]	95	95	95	95	95
Max. operating temperature hot drinking water side	[°C]	95	95	95	95	95
Max. operating temperature solar side	[°C]	95	95	95	95	95
Surface HE top	[m²]	2,5	3,8	6	4,9	6
Surface HE bottom	[m²]	1	1,5	1,8	1,8	2,8
Insulation thickness	[mm]	50	50	50	95	95
Max. installation length EHP	[mm]	500	500	500	630	630
Max. output EHP	[kW]	9	9,5	10	15	17
Output figure	[-]	1,4	3,8	4,1	5	5,8
On-demand heat overhead	[kWh/d]	2,00	2,60	2,60	3,10	3,40
Holding losses	[W]	84	107	110	129	141
Efficiency class	[-]	C	C	C	C	C
Pressure loss heating side	[mbar]	30	41	84	67	104
Flow rate heating side	[m³/h]	1	1,1	1,6	1,5	1,7
Insulation material	[-]	PU rigid foam ($\lambda=0.024$ W/mK)			PU rigid foam shell ($\lambda=0.024$ W/mK)	
Corrosion protection	[-]	Enamelled as per DIN 4753, magnesium anode				

Output data BWPS 300 - 1000

	Continuous output at supply temperature ¹				Values as per DIN4708 (data relative to output figure) ²				Draw-off performance in 60 min ³		
	50 °C		60 °C		Output	Max. draw-off performance in 10 min		Draw-off performance after 30 min		Supply temp. 55 °C	
	[kW]	[l/h]	[kW]	[l/h]		[l]	[l/min]	[l]	[l/min]		
HE top	300	10.5	258	30.0	737	1.4	167	16.7	50	16.0	399
	500	16.0	392	45.6	1120	3.8	260	26.0	140	22.4	642
	600	25.2	619	72.0	1769	4.1	270	27.0	151	23.1	893
	800	25.2	619	72.0	1769	5.0	298	29.8	184	25.1	921
	1000	25.2	619	72.0	1769	5.8	321	32.1	213	26.7	1080

	Continuous performance						Values as per DIN4708				Draw-off performance in 60 min		
	50 °C		60 °C		70 °C		Output	Max. draw-off performance in 10 min		Draw-off performance after 30 min		Supply temp. 70 °C	
	[kW]	[l/h]	[kW]	[l/h]	[kW]	[l/h]		[l]	[l/min]	[l]	[l/min]		
HE bottom	300	4.2	103	12.0	295	21.0	516	3.1	235	23.5	115	20.7	868
	500	6.3	155	18.0	442	31.5	774	4.8	291	29.1	177	24.6	1397
	600	7.6	186	21.6	531	37.8	929	6.9	352	35.2	252	28.8	1630
	800	7.6	186	21.6	531	37.8	929	6.9	352	35.2	252	28.8	1968
	1000	11.8	289	33.6	825	58.8	1445	10.4	423	42.3	381	33.7	2587

1 - Heating from CW 10 °C to WW 45 °C

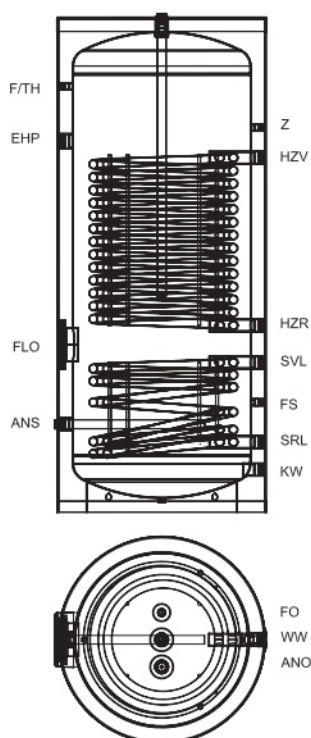
2 - Heating from CW 10 °C to WW 45 °C; supply 70 °C; storage tank temperature CW + 50 K

3 - Computed data at maximum output; CW 10 °C to WW 45 °C; storage tank temperature 60 °C

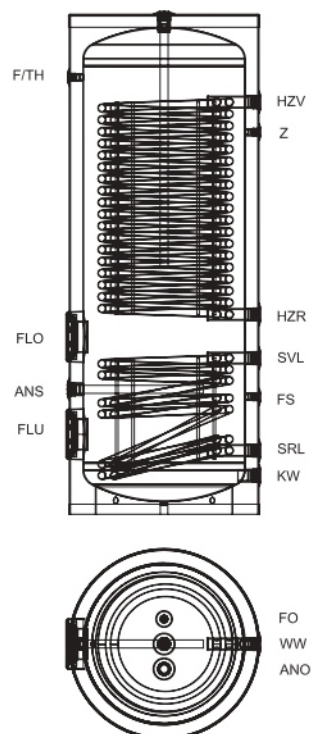
Connections and dimensions BWPS 300 - 1000

Connections		Unit	BWPS 300	BWPS 500	BWPS 600	BWPS 800	BWPS 1000
FO	Top sensor	[mm]	1670 ½" IT	1800 ½" IT	2000 ½" IT	1940 ½" IT	2140 ½" IT
ENT	Ventilation	[mm]	-	-	-	1940 1¼" IT	2140 1¼" IT
WW	Hot water	[mm]	1670 1¼" IT	1800 1¼" IT	2000 1¼" IT	1765 2" IT	1965 2" IT
ANO	Anode top	[mm]	1670 1¼" IT	1800 1¼" IT	2000 1¼" IT	1940 1¾" IT	2140 1¾" IT
F/TH	Sensor/Thermometer	[mm]	1425 ½" IT	1550 ½" IT	1750 ½" IT	1650 ½" IT	1850 ½" IT
EHP	Electric heating cartridge	[mm]	-	1350 1½" IG	-	-	-
FLO	Flange top	[mm]	700 Ø 180 mm	610 Ø 180 mm	710 Ø 180 mm	800 Ø 180 mm	930 Ø 180 mm
FLU	Flange bottom	[mm]	-	-	320 Ø 180 mm	350 Ø 290 mm	350 Ø 290 mm
ANS	Anode side	[mm]	210 1¼" IT	320 1¼" IT	500 1¼" IT	570 1¼" IT	610 1¼" IT
Z	Circulation	[mm]	1250 ½" IT	1400 ½" IT	1530 ½" IT	1400 1" IT	1600 1" IT
HZV	Heating supply	[mm]	1390 1¼" IT	1290 1¼" IT	1650 1¼" IT	1620 1¼" IT	1855 1¼" IT
HZR	Heating return	[mm]	805 1¼" IT	680 1¼" IT	800 1¼" IT	900 1¼" IT	1000 1¼" IT
SVL	Solar supply	[mm]	620 1" IT	545 1¼" IT	625 1¼" IT	675 1¼" IT	855 1¼" IT
FS	Solar sensor	[mm]	420 ½" IT	400 ½" IT	470 ½" IT	540 ½" IT	580 ½" IT
SRL	Solar return	[mm]	260 1" IT	255 1¼" IT	255 1¼" IT	275 1¼" IT	275 1¼" IT
KW	Cold water	[mm]	135 1¼" IT	155 1¼" IT	155 1¼" IT	175 2" IT	175 2" IT

BWPS 300 - 500



BWPS 600



BWPS 800 - 1000

